

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-347-AD; Amendment 39-13908; AD 2004-25-20]

RIN 2120-AA64

Airworthiness Directives; Saab Model SAAB 2000 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Saab Model SAAB 2000 series airplanes. This action requires various repetitive inspections for cracking of the drag and shear angles that attach the nacelle to the wing, and related corrective action. This action also requires eventual modification of the drag and shear angles, which would end the repetitive inspections. This action is necessary to prevent fatigue cracking of the drag and shear angles, which could result in reduced structural integrity of the nacelle attachment to the wing. This action is intended to address the identified unsafe condition.

DATES: Effective January 24, 2005.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 24, 2005.

ADDRESSES: The service information referenced in this AD may be obtained from Saab Aircraft AB, SAAB Aircraft Product Support, S-581.88, Linköping, Sweden. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4057; telephone (425) 227-2125; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Saab Model SAAB 2000 series airplanes was published in the Federal Register on May 19, 2004 (69

FR 28860). That action proposed to require various repetitive inspections for cracking of the drag and shear angles that attach the nacelle to the front spar of the wing, and related corrective action. That action also proposed to require eventual modification of the drag and shear angles, which would end the repetitive inspections.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Allow Temporary Flight With Known Cracking

The commenter, the manufacturer, states that the Swedish airworthiness directives and the Saab service bulletins specify that operators may temporarily continue operating an airplane with known cracking in the drag and shear angles. The commenter notes that the proposed AD does not allow flight with any known cracking. The commenter also notes that it is aware of an FAA policy that does not allow airplanes to operate with known cracking, but that the FAA has allowed deviation from that policy under certain conditions. The commenter states that, for the proposed AD, these conditions apply:

- The repairs are complicated and time consuming and can only be performed during a major maintenance stop.
- The cracking is probably caused by secondary local bending of the flanges of the angles due to wing deflections.
- Analysis shows that the structure will maintain the capability to sustain ultimate loads for cracking.
- The maximum deferral time before repairing known cracking is 20,000 flights.
- Repair methods and terminating action have been identified and repair material is available for operators.

We infer that the commenter is requesting that the proposed AD be revised to allow temporary flight with known cracking.

We agree. While it is not our normal policy to allow flight with known cracking, based upon our review of the substantiating data submitted by the manufacturer, we have determined that we can allow temporary flight with known cracking within the limits specified in the applicable Saab service bulletins. We have determined that, if the crack size limits are strictly observed, and if repetitive inspections are performed at the required intervals, cracking that grows beyond the specified limits will be detected, and corrective action taken, before the cracking can grow to a size that would create an unacceptable risk of structural failure. Paragraph (c) of this final rule allows temporary flight with known cracking within the limits specified in the applicable Saab service bulletins.

Request To Clarify Compliance Time for Initial Inspections

The commenter requests that the compliance times specified in paragraphs (b)(2) and (b)(3) of the proposed AD be changed to include the phrases "but not later than at 14,500 flight cycles" and "but not later than at 11,000 flight cycles," respectively. The commenter did not provide any justification for this request.

We agree with the commenter's request to add the phrases stated above to paragraphs (b)(2) and (b)(3) of this final rule. Upon review of the compliance times specified in the applicable service bulletins, we find that this information was inadvertently omitted from the compliance times stated in the proposed AD. We have determined that including this information in this final rule imposes no additional burden on any U.S.-registered airplane because none of these airplanes have accumulated the number of flight cycles that would make these provisions applicable. This change also provides

harmonization between the Swedish airworthiness directives, Saab service bulletins, and this final rule.

Request To Clarify Unsafe Condition

The commenter suggests that the unsafe condition statement in the Summary and Discussion sections and the body of the proposed AD be changed to include the phrase "attachment to the wing." The commenter states that it is the integrity of the attachment of the nacelle to the wing that can be reduced, not the structural integrity of the nacelle or the wing.

We agree. The unsafe condition in the Summary, Discussion, and body sections of the proposed AD states "This action is necessary to prevent fatigue cracking of the drag and shear angles, which could result in reduced structural integrity of the nacelle and wing." The unsafe condition statement in the Summary and body of this final rule is "To prevent fatigue cracking of the drag and shear angles, which could result in reduced structural integrity of the nacelle attachment to the wing." The Discussion section is not restated in this final rule, so no change to the final rule is necessary in this regard.

Request for Changes to Paragraph (a)

The commenter requests that, after the word "fasteners" in paragraph (a)(1) of the proposed AD, the words "and in the radius of the shear angle" be included. The commenter also requests that, after the words "around the fasteners" in paragraph (a)(2) of the proposed AD, the words "as applicable" be included. The commenter did not provide any justification for the request. We infer that the commenter requests these changes for clarification purposes.

We agree. Paragraph (a)(1) of this final rule includes the words "and in the radii of the shear angles." (We have pluralized the wording since more than one angle is being inspected.) Paragraph (a)(2) of this final rule includes the words "where applicable."

Request To Clarify Termination of Repetitive Inspections

The commenter requests that the Summary section of the proposed AD be changed to clarify that the terminating action specified in the proposed AD would only end the repetitive inspections identified in the Saab service bulletins. The commenter states that the structural inspection program will continue to require inspections of the drag and shear angles.

We do not agree with the commenter's request to change the proposed AD to specify that only the repetitive inspections identified in the service bulletins will be terminated. Paragraph (e) of the proposed AD, which is the Terminating Action paragraph, clearly states, "Accomplishment of these modifications ends the repetitive inspections required by paragraphs (a) and (b) of this AD." Furthermore, an AD is not the vehicle for terminating inspections in operators' maintenance programs. No change to the final rule is necessary in this regard.

Request To Include Reporting Information to the Manufacturer

The commenter notes that the proposed AD does not include a reporting requirement. The Saab service bulletins referenced in the proposed AD include instructions for reporting inspection information to the manufacturer. The commenter states that feedback from operators is important to "keep a high confidence in the analysis and to be able to plan supply of repair and modification material." We infer that the commenter requests that the proposed AD include a reporting requirement.

We do not agree. We understand the need for manufacturers to collect useful data; however, we do not require this information. The Paperwork Reduction Act requires agencies to consider the extent of the paperwork burden that will accompany any new rule. This Act is intended to reduce

these burdens by requiring agencies not only to analyze the information collection and reporting costs they are imposing on the private sector, but also to use those analyses to minimize the cost. Since we do not need the information regarding the inspection findings, we will not include a reporting requirement in this final rule. Operators may voluntarily submit inspection results to the manufacturer.

Request To Change Explanation of Relevant Service Information

The commenter requests the following changes to the Explanation of Relevant Service Information section of the proposed AD:

- Delete " * * * and related corrective action" in the first paragraph. This paragraph discusses the procedures included in Saab Service Bulletins 2000-54-026 and 2000-54-028, both Revision 01, both dated June 20, 2002. The commenter notes that the corrective actions are included in Saab Service Bulletins 2000-54-027 and 2000-54-029, both dated November 4, 2002.
- Change the order of the procedures in the second paragraph so the order of the procedures correlates to the order of the service bulletin references. The commenter suggests, "Additionally, the manufacturer has issued Service Bulletins 2000-54-027 and 2000-54-029, both dated November 4, 2002, which describe procedures for modification of the shear angles and of the upper and lower drag angles." The commenter notes that Service Bulletin 2000-54-027 addresses modification of the shear angles and Service Bulletin 2000-54-029 addresses modification of the upper and lower drag angles.
- Delete the parenthetical reference, "rotating probe," that appears in the second paragraph. The commenter states that this phrase is not applicable.
- Change the last sentence of the second paragraph to "If any cracking is found, repair and modifications of the drag angles are detailed in the associated service bulletins. Both service bulletins describe procedures for determining the length and position of each crack and sending a report to the manufacturer."

We agree with the commenter's suggestions. However, since the Explanation of Relevant Service Information section of the proposed AD is not restated in this final rule, no change to this final rule is necessary in this regard.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

We estimate that 3 airplanes of U.S. registry will be affected by this AD.

It will take about 6 work hours per airplane to do the inspections, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the inspections on U.S. operators is estimated to be \$1,170, or \$390 per airplane, per inspection cycle.

It will take about 40 work hours per airplane to do the modification of the shear angles, at an average labor rate of \$65 per work hour. Required parts will cost about \$6,200 per airplane. Based on these figures, the cost impact of the modification on U.S. operators is estimated to be \$26,400, or \$8,800 per airplane.

It will take about 400 work hours per airplane to do the modification of the drag angles, at an average labor rate of \$65 per work hour. Required parts will cost about \$41,794 per airplane. Based on these figures, the cost impact of the modification on U.S. operators is estimated to be \$203,382, or \$67,794 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-25-20 Saab Aircraft AB: Amendment 39-13908. Docket 2002-NM-347-AD.

Applicability: Model SAAB 2000 series airplanes, certificated in any category, serial numbers - 004 through -063 inclusive.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking of the drag and shear angles of the wing, which could result in reduced structural integrity of the nacelle attachment to the wing, accomplish the following:

Repetitive Inspections

(a) Do the inspections required by paragraphs (a)(1) and (a)(2) of this AD, at the applicable time specified in paragraph (b) of this AD.

(1) Do a detailed inspection for cracking of the shear angles which attach the nacelle to the front spar of the wing, and an eddy current inspection for cracking around the fasteners and in the radii of the shear angles, by doing all the actions per the Accomplishment Instructions of Saab Service Bulletin 2000-54-026, Revision 01, dated June 20, 2002.

(2) Do an endoscope inspection of the upper and lower drag angles for cracking, and an eddy current inspection for cracking around the fasteners where applicable, by doing all the actions per the Accomplishment Instructions of Saab Service Bulletin 2000-54-028, Revision 01, dated June 20, 2002.

Note 1: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Compliance Times

(b) Do the inspections required by paragraph (a) of this AD at the applicable compliance time specified in paragraph (b)(1), (b)(2), or (b)(3) of this AD. Repeat the inspections thereafter at intervals not to exceed 4,000 flight cycles until the modification required by paragraph (e) of this AD is done.

(1) For airplanes that have accumulated 14,000 or more total flight cycles as of the effective date of this AD: Inspect within 500 flight cycles after the effective date of this AD.

(2) For airplanes that have accumulated 10,000 or more total flight cycles, but fewer than 14,000 total flight cycles as of the effective date of this AD: Inspect within 1,000 flight cycles after the effective date of this AD, but not later than 14,500 total flight cycles.

(3) For airplanes that have accumulated fewer than 10,000 total flight cycles as of the effective date of this AD: Inspect within 2,000 flight cycles after the effective date of this AD, but not later than 11,500 total flight cycles.

Corrective Action

(c) If any cracking is found during any inspection required by this AD: Except as provided by paragraph (f) of this AD, do the actions specified in and at the times specified in Table 1 of the Accomplishment Instructions of Saab Service Bulletin 2000-54-026, Revision 01, dated June 20, 2002; or Saab Service Bulletin 2000-54-028, Revision 01, dated June 20, 2002; as applicable. Where the service bulletins specify to contact the manufacturer, before further flight, repair the cracking in accordance with a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Luftfartsverket (or its delegated agent). Instead of repairing the cracking, doing the modifications required by paragraph (e) of this AD before further flight, terminates the repetitive inspections required by paragraphs (a) and (b) of this AD.

Inspections Done Per Previous Issues of Service Bulletins

(d) Inspections done before the effective date of this AD per Saab Service Bulletins 2000-54-026 and 2000-54-028, both dated April 26, 2002, are considered acceptable for compliance with the corresponding actions specified in this AD.

Terminating Action

(e) Except as provided by paragraph (c) of this AD: Do the modifications of the drag and shear angles of the wing at the times specified in paragraphs (e)(1) and (e)(2) of this AD. Accomplishment of these modifications ends the repetitive inspections required by paragraphs (a) and (b) of this AD.

(1) Before the accumulation of 20,000 total flight cycles: Modify the shear angles that attach the nacelle to the front spar of the wing by doing all the actions per the Accomplishment Instructions of Saab Service Bulletin 2000-54-027, dated November 4, 2002.

(2) Before the accumulation of 24,000 total flight cycles: Modify the upper and lower drag angles by doing all the actions per the Accomplishment Instructions of Saab Service Bulletin 2000-54-029, dated November 4, 2002.

No Reporting Requirement

(f) Although the Saab service bulletins referenced in this AD recommend submitting certain information to the manufacturer, this AD does not include such a requirement.

Alternative Methods of Compliance

(g) In accordance with 14 CFR 39.19, the Manager, International Branch, ANM-116, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(h) Unless otherwise specified in this AD, the actions shall be done in accordance with the service bulletins listed in Table 1 of this AD.

TABLE 1.—SERVICE BULLETINS INCORPORATED BY REFERENCE

Saab service bulletin—	Revision level—	Date—
2000–54–026	01	June 20, 2002.
2000–54–027	Original	November 4, 2002.
2000–54–028	01	June 20, 2002.
2000–54–029	Original	November 4, 2002.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Saab Aircraft AB, SAAB Aircraft Product Support, S-581.88, Linköping, Sweden. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Note 2: The subject of this AD is addressed in Swedish airworthiness directives 1-174 and 1-175, both effective April 30, 2002; and Swedish airworthiness directives 1-1180 and 1-181, both effective November 8, 2002.

Effective Date

- (i) This amendment becomes effective on January 24, 2005.

Issued in Renton, Washington, on December 6, 2004.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-27506 Filed 12-17-04; 8:45 am]

BILLING CODE 4910-13-P